CLAIMS

Please amend claims 1, 17 and 18, add new claims 23-25 and cancel claim 16 without prejudice. No new matter has been added.

1. (Currently Amended) An apparatus, comprising:

an array of carbon nanotube heads, each of the carbon nanotube heads including:

a carbon nanotube,

a housing surrounding the carbon nanotube,

an acceleration electrode mounted at an end of the housing,

a deflection electrode interposed between the acceleration electrode and the carbon nanotube,

a window sealing the end of the housing, the window transmissive to electrons emitted from the carbon nanotube,

~~and~~

a detection electrode mounted on a surface of the window, the surface exterior to the housing;

and

a substrate upon which the array of carbon nanotube heads are mounted.

2. (Original) The apparatus of claim 1, wherein:

the array of carbon nanotube heads includes a set of read/write heads.

3. (Original) The apparatus of claim 1, wherein:

the array of carbon nanotube heads includes independent controls for each carbon nanotube head.

4-9. (Cancelled)

10. (Previously Presented) The apparatus of claim 1, further comprising:

a gating electrode interposed between the deflection electrode and the carbon nanotube.

11. (Previously Presented) The apparatus of claim 1 ~~0~~, further comprising:

a focus electrode interposed between the deflection electrode and the carbon nanotube.

12. (Previously Presented) The apparatus of claim 1, wherein:

the housing is a vacuum housing.

13. (Previously Presented) The apparatus of claim 1, wherein:

the window is a boron nitride window.

14. (Previously Presented) The apparatus of claim 1, wherein:

the substrate is mounted on a base, the housing of each carbon nanotube is attached to the base.

15. (Previously Presented) The apparatus of claim 1, wherein:

carbon nanotubes of the array of carbon nanotubes each have individual housings associated therewith.

16. (Cancelled)

17. (Currently Amended) An apparatus, comprising:

an array of carbon nanotube heads, each of the carbon nanotube heads including:

a carbon nanotube,

an evacuated housing surrounding the carbon nanotube,

an acceleration electrode mounted at an end of the housing,

a deflection electrode interposed between the acceleration electrode and the carbon nanotube,

a boron nitride window sealing the end of the housing,

a detection electrode mounted on a surface of the window, the surface exterior to the housing

a gating electrode interposed between the deflection electrode and the carbon nanotube,

~~and~~

a focus electrode interposed between the deflection electrode and the gating electrode;

and

a substrate upon which the array of carbon nanotube heads are mounted.

18. (Currently Amended) An apparatus, comprising:

an array of carbon nanotube heads, each of the carbon nanotube heads including:

a carbon nanotube,

a housing surrounding the carbon nanotube,

an acceleration electrode mounted at an end of the housing,

a deflection electrode interposed between the acceleration electrode and the carbon nanotube,

a window sealing the end of the housing, the window transmissive to electrons emitted from the carbon nanotube,

a detection electrode mounted on a surface of the window, the surface exterior to the housing

a gating electrode interposed between the deflection electrode and the carbon nanotube,

~~and~~

a focus electrode interposed between the deflection electrode and the gating electrode;

and

a substrate upon which the array of carbon nanotube heads are mounted.

19. (Previously Presented) The apparatus of claim 18, wherein:

the housing is a vacuum housing.

20. (Previously Presented) The apparatus of claim 18, wherein:

the window is a boron nitride window.

21. (Previously Presented) The apparatus of claim 18, wherein:

the substrate is mounted on a base, the housing of each carbon nanotube is attached to the base.

22. (Previously Presented) The apparatus of claim 17, wherein:

the substrate is mounted on a base, the housing of each carbon nanotube is attached to the base.

23. (New) The apparatus of claim 22, wherein:

the carbon nanotube heads of the array of carbon nanotube heads are arranged in an offset linear pattern, the offset linear pattern arranged to span a diameter of a rotating medium, the carbon nanotube heads arranged in the offset linear pattern to have overlapping coverage of a rotating medium, the carbon nanotube heads arranged in the offset linear pattern to avoid crosstalk between adjacent carbon nanotube heads of the array of carbon nanotube heads.

24. (New) The apparatus of claim 22, wherein:

the carbon nanotube heads of the array of carbon nanotube heads are arranged in an offset linear pattern, the offset linear pattern arranged to span a zone of a diameter of a rotating medium, the carbon nanotube heads arranged in the offset linear pattern to have overlapping coverage of a rotating medium, the carbon nanotube heads arranged in the offset linear pattern to avoid crosstalk between adjacent carbon nanotube heads of the array of carbon nanotube heads, the zone constituting a portion of a rotating medium.

25. (New) The apparatus of claim 24, wherein:

the base is a stationary component of a disk drive.